

ABSTRACT

A process for burning a sulfur-containing fuel to produce a flue gas is disclosed. The process comprises introducing a sulfur-containing fuel into a combustion chamber, introducing an oxidant stream into the combustion chamber and mixing it with the sulfur-containing fuel to define a combustion zone, and introducing potassium carbonate into the combustion chamber. The sulfur-containing fuel is burned to produce the flue gas and potassium sulfate.